ASSIGNMENT 6

Textbook Assignment: "Plumbing Fixtures and Plumbing Repairs" (continued) and "Prime Movers, Pumps, and Compressors," chapters 5 and 6, pages 5-31 through 6-16.

6-1. Replacement washers for a compression type of faucet should be flat on one side, slightly rounded on the other, and made of what type of material?

1. Leather
2. Brass or copper
3. Hard composition
4. Soft composition

6-2. When the washer of a compression faucet is replaced, what other component of the faucet should be examined and replaced, if needed?

1. Threaded spindle
2. Packing nut
3. Faucet stem
4. Valve seat

6-3. What is the purpose of a ball-bearing washer installed on a faucet?

1. Reduces wear of the washer
2. Ensures tightness of the stem
3. Holds the seat washer in place
4. Reduces wear on stem

6-4. Mud, sand, or gravel in the sewer reveals what type of problem?

1. An improperly working sewage disposal plant
2. A loose joint or broken pipe in the sewer system
3. A stopped-up manhole
4. A lateral run that is plugged

6-5. What should be your first step in correcting a problem in a sewer system?

1. Inspect the system regularly
2. Determine the cause of the problem
3. Decide on the course of action for needed repairs
4. Obtain the proper tools

6-6. Routine sewer maintenance consists of which of the following actions?

1. Flushing only
2. Cleaning only
3. Repairing only
4. Flushing, cleaning, and repairing

6-7. The efficiency of flushing a sewer depends directly upon which factor?

1. Velocity of the water being used
2. Volume of water being used
3. Amount of solids in the sewer
4. Size of the sewer line

6-8. What precaution should you take with a fire hose for flushing a sewer?

1. Flush the hose thoroughly with clean water
2. Destroy the hose after use
3. Color the ends of the hose to prevent use on potable water systems
4. Flush the hose with a strong solution of calcium hypochloride

6-9. When flushing a sewer with a pneumatic ball and the sewage flow is low, you should take what action?

1. Follow up the pneumatic ball with a fire hose
2. Attach a line to the pneumatic ball
3. Add water to the upper manhole
4. Precede the pneumatic ball with a sewer rod to loosen the mass of solids

6-10. Accumulated sand deposits are removed at a manhole by using which of the following methods?

1. Sand traps
2. Water flushing
3. Turbine flushing tools
4. Each of the above

6-11. What tools are especially useful for removing masses of grease and other large obstructions from a sewer line?

1. Sand cups
2. Flat sewer rods
3. Power-driven buckets
4. Turbine-driven cleaning tools

6-12. What is the most economical means of removing roots from a sewer line?

1. Cable-drawn scrapers
2. Copper sulfate
3. Phenol blue
4. Turbine-driven cleaning tools

6-13. You should use what criteria to determine the most appropriate method for clearing a fixture stoppage?

1. Nature and seriousness of the stoppage
2. Size of the pipe
3. Location of the stoppage
4. Location of the fixture

6-14. Which of the following tools is commonly used for clearing stoppages in service sinks, lavatories, bathtubs, and water closets?

1. Closet auger
2. Force cup
3. Plumber's snake
4. Sewer snake

6-15. Trap and drain augers are commonly referred to by which of the following terms?

1. Drain busters
2. Plumber's friends
3. Sink snakes
4. Trap cleaners

6-16. When clearing stoppages in fixtures, you should maintain caution for which of the following reasons?

1. Clearing tools have sharp edges that can cause severe cuts
2. Infection is almost inevitable
3. Caustic chemicals may have been used to try and clear the stoppage
4. Broken fittings and fixtures can cause eye injuries

6-17. Before using chemicals to clear a stoppage, you must take what action to partially clear a completely blocked drain?

1. Pour hot water into the drain
2. Establish a small amount of flow manually
3. Add caustic soda and hot water to the drain
4. Place 8 ounces of baurite in the drain and pour in hot water

6-18. Acids used with pipework should be stored in a container made of what type of material?

1. Plastic or lead
2. Plastic or glass
3. Glass or lead
4. Lead or ceramic

6-19 Before personnel begin work that requires entering sewer manholes or tanks, they must take which of the following precautions?

1. Ensure they know proper use of respiratory equipment
2. Ensure space has been inspected by personnel qualified for Confined Space Entry
3. Have lifelines and standby personnel.
4. Each of the above

6-20. Wearing of goggles, gloves, or other protective clothing is governed by what primary factor?

1. The supervisor
2. The type of work to be performed
3. The written job specifications
4. The climate and location of the job

6-21. The jaws of an adjustable pipe wrench should be positioned in what manner to grip a pipe or fixture?

1. Back of the jaws only
2. Middle of the jaws only
3. Back or middle of the jaws
4. Front of the jaws

6-22. To lift a heavy piece of pipe safely, you should lift it in such a way that the weight is primarily concentrated on what part(s) of your body?

1. Arms
2. Back
3. Torso
4. Legs

6-23. You are part of a crew carrying a long and heavy pipe, and you get the signal to lower the load. You should react to the signal in which of the following ways?

1. Lower the load fast with the rest of the crew, and bend at the knees
2. Lower the load slowly with the rest of the crew, and bend at the knees
3. Lower the load in unison, but use more of your back
4. Lower the load in unison, but let your arms feel the weight

6-24. What is the authorized fluid in the vertical cylinder of a deadweight tester?

1. Mineral oil
2. SAE oil
3. Water-base hydraulic fluid
4. Mineral-base hydraulic fluid

6-25. The distance between the pointer spindle and the link connection in the sector gear of a Bourdon-tube pressure gauge must be reset if what condition is present?

1. The pointer does not travel the correct distance as a test weight is added
2. The reading is correct at the working pressure
3. The amount of increase for each weight is correct but the total reading is wrong
4. The readings are incorrect over the entire scale

6-26. The reading on a diaphragm type of air pressure gauge should be zero

1. when the three-way cock handle is at right angles to the valve body
2. when the handle of the three-way cock is parallel with the valve body
3. when the gauge is open to the pressure in the line
4. when the outside zero adjustment screw is pulled out as far as possible

6-27. What type of power can you expect from a prime mover?

1. Electrical
2. Mechanical
3. Electromechanical
4. Pneumatic

6-28. The transfer of mechanical power from a prime mover to a pump is accomplished through what type of mechanism?

1. Power train
2. Drive
3. Linkage
4. Transmission

6-29. The rotating field induction ac motor is popular for which of the following reasons?

1. It is cheap and reliable
2. It is simple and cheap
3. It is expensive and reliable
4. It is simple and reliable

6-30. What type of current produces the magnetic field in the rotor of a rotating-field induction ac motor?

1. Alternating
2. Direct
3. Induced
4. Capacitive

6-31. When an induction motor is overloaded, it draws an excessive amount of

1. resistance
2. reluctance
3. voltage
4. current

6-32. What device provides more power during the starting of a split-phase motor?

1. Relay
2. Capacitor
3. Stator
4. Rotor

6-33. The primary function of motor bearings is to reduce

1. ac power needs
2. dc power needs
3. friction
4. slippage

6-34. What problem condition could result from too much grease on the bearings?

1. Reduced conduction of heat
2. Increased resistance
3. Slippage
4. Increased friction

6-35. The flexible coupling is designed to absorb torque that is caused by

1. the inertia of the driven equipment
2. the inertia of the driving equipment
3. slight misalignment
4. too much misalignment

6-36. When inspecting the sheaves, you see evidence that the belt was rubbing on the sheaves. The probable cause is

1. a frayed belt
2. a slipping belt
3. the belt is too tight
4. a belt with grease on it

6-37. What precautions should you take when replacing a worn belt on a multiple-belt drive mechanism?

1. Replace only the worn belt
2. Replace all belts with a matched set
3. Replaces all belts and sheaves
4. Prestretch the new belt

6-38. What is the preferred way of removing dust and dirt from stator windings?

1. Use a petroleum solvent only
2. Forced compressed air into the windings only
3. Use a solvent first, then use compressed air
4. Use vacuum suction

6-39 The Utilitiesman should understand the operation of diesel and gasoline engines for which of the following reasons?

1. A CM may not be around when trouble occurs
2. The trouble could take place during off-duty hours
3. The UT must conduct first echelon maintenance on the engine
4. The UT may have subordinate CMs learning engine operations

6-40. The minimum basic procedures of a prestart inspection includes which of the following series of checks, regardless of engine type?

1. Fuel, oil, water, and fluid leaks
2. Tires, oil, belts, and water
3. Fuel, oil, water, and pressure
4. Oil, water, battery, and tires

6-41. Once a diesel engine is started, the operator should take what action to keep the valves from fouling?

1. Throttle the engine to slow idle
2. Throttle the engine to fast idle
3. Set the fuel-air mixture to a leaner mixture
4. Set the fuel-air mixture to a richer mixture

6-42. When warming up a diesel engine, you should allow how much time for the lube oil pressure gauge to show enough positive pressure?

1. 5 seconds
2. 10 seconds
3. 20 seconds
4. 30 seconds

6-43. On what stroke of a gasoline engine is air admitted to the engine?

1. Power
2. Intake
3. Compression
4. Exhaust

6-44. What is the function of a choke in a gasoline engine?

1. To increase the idling speed
2. To decrease the idling speed
3. To lean the air-fuel mixture
4. To enrich the air-fuel mixture

6-45. What type of water should be used in engine radiators to keep the coolant system free of sediment?

1. Rainwater
2. Distilled water
3. Hard water
4. Soft water

6-46. A pump transforms energy from an external source into what type of energy?

1. Internal
2. Potential
3. Kinetic
4. Latent

6-47. What two ends are contained in every pump?

1. Suction end and discharge end
2. Power end and fluid end
3. Positive end and negative end
4. Input end and output end

6-48. Head in a pump is defined as a/an

1. increase in suction
2. net positive suction
3. increase in pressure
4. total discharge

6-49. What does the term "suction head" on a pump mean?

1. The suction pressure less the vapor pressure
2. The pressure of the liquid leaving the pump
3. The difference between the suction head and the discharge head
4. The total pressure of the liquid entering the pump

6-50. What term is used to describe the process whereby a pump becomes vapor bound and reduces suction lift?

1. Reverse suction
2. Reverse compression
3. Cavitation
4. Reciprocation

6-51. What device(s) on a relief valve permits the spring tension to be regulated?

1. Needle
2. Ball
3. Disk and stem
4. Nut or screw

6-52. Rotary pumps use which of the following principles to discharge water in a continuous flow?

1. Throwing and plunging
2. Entrapment and displacement
3. Plunging and reciprocation
4. Reciprocation and throwing

6-53. There is a total of how many gears in the gear type of rotary pump?

1. One
2. Two
3. Three
4. Four

6-54. Screw pumps are used mainly to pump what kind of fluid?

1. Viscous
2. Abrasive
3. Corrosive
4. Volatile

6-55. What is the source of lubrication for the elements of a rotating pump?

1. Oil from the fittings
2. Grease forced between the spur gears
3. The liquid handled by the pump
4. Graphite added to the liquid in the pump

6-56. Most reciprocating pumps in the Navy are of what type?

1. Direct acting
2. Indirect acting
3. Horizontal acting
4. Single acting

6-57. What part of a diaphragm pump converts rotary motion to reciprocating motion?

1. The drive shaft
2. The camshaft
3. The eccentric connecting rod
4. The centrifugal cam

6-58. The liquid in a diaphragm is made to move by what kind of motion?

1. Centrifugal
2. Centripetal
3. Rotary
4. Reciprocating

6-59. Because of the makeup of the liquids handled by the diaphragm pump, operator maintenance means frequent inspection of the

1. suction inlet strainer
2. pressure outlet strainer
3. liquid cylinder
4. debris collector

6-60. In a double-acting pump, what number of strokes does it take to draw in and discharge liquid?

1. One
2. Two
3. Three
4. Four

6-61. Which of the following features is indicative of a low-pressure pump?

1. The steam piston has a larger diameter than the plunger in the liquid cylinder
2. The pressure per square inch is greater in the liquid cylinder than in the steam cylinder
3. A small volume of liquid with a high pressure is discharged
4. A large volume of liquid with a low-discharge pressure

6-62. What part of a reciprocating pump automatically times the admission and release of steam to and from each end of the steam cylinder?

1. Rocker arm
2. Tappet collar
3. Valve assembly
4. Pump rod

6-63. What action should you take first before examining or repairing a reciprocating pump?

1. Gather the tools required
2. Assemble blueprints, drawings, and other data
3. Measure the main cylinders and valve chest cylinders
4. Draw a diagrammatic sketch of the pump

6-64. There are what number of moving parts in the basic centrifugal pump?

1. One
2. Two
3. Three
4. Four

6-65. Which of the following laws of physics applies to the centrifugal pump?

1. As the velocity of fluid increases, the pressure increases
2. The suction at the center of rotation is inversely proportional to the pressure away from the center of the rotation
3. As the velocity of a fluid increases, the pressure decreases
4. The pressure at the center of rotation equals the pressure away from the center of rotation

6-66. Multistage centrifugal pumps have two or more of what type of devices?

1. Shafts
2. Impellers
3. Volutes
4. Diffusers

6-67. What type of impeller has sidewalls extending from the eye to the outer edge of the vane tips?

1. Volute
2. Vertical
3. Closed
4. Open